U.S. Department
of Transportation
**Research and
Special Programs
Administration**

400 Seventh St., S.W.
Washington, D.C. 20590

JAN 6 2003

DOT-E 11722
(FOURTH REVISION)

EXPIRATION DATE: January 31, 2004

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: CITERGAZ, SA, Civray, France
(US Agent: Travel and Trade International, Alexandria, Virginia)

(See Appendix A to this document for a list of additional grantees)

2. PURPOSE AND LIMITATION:

a. This exemption authorizes the transportation in commerce of certain non-DOT specification spherical pressure vessels containing Division 2.1, 2.2 and 2.3 compressed gases. This exemption provides no relief from any Hazardous Materials Regulations (HMR) other than as specifically stated herein.

b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce.

3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.

4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.302a(a)(1) and § 173.304(a)(1) in that non-DOT specification spherical pressure vessels, are not authorized, except as specified herein.

5. BASIS: This exemption is based on the application of CITERGAZ, SA dated January 22, 2002, submitted in accordance with § 107.109.

6. HAZARDOUS MATERIALS (49 CFR § 172.101): JAN 6 2003

Hazardous Material Description			
Proper Shipping Name	**Hazard Class/ Division**	**Identification Number**	**Packing Group**
Boron trifluoride, compressed	2.3	UN1008	N/A Hazard Zone B
Difluoroethylene *or* Refrigerant gas, R1132a	2.1	UN1959	N/A
Hexafluoroethane, compressed *or* Refrigerant gas, R116	2.2	UN2193	N/A
Hydrogen chloride, anhydrous	2.3	UN1050	N/A Hazard Zone C
Nitrogen trifluoride, compressed	2.2	UN2451	N/A
Nitrous oxide	2.2	UN1070	N/A
Trifluoromethane *or* Refrigerant gas R23	2.2	UN1984	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Prescribed packagings are non-DOT specification spherical pressure vessels, designated as CITERGAZ C11S000C spherical cylinders. Each pressure vessel must be constructed in accordance with CITERGAZ SA drawing number 110004, other drawings, technical specifications, and calculations on file with the Office of Hazardous Materials Exemptions and Approvals (OHMEA) and in conformance with the following provisions:

(1)Code - Each spherical pressure vessel is designed, constructed, and certified in accordance with the ASME Code Section VIII, Division 1, including the ASME "U" stamp, and qualified to contain "lethal substances" as specified in Part UW-2 of the ASME Code. The vessel is made from two hemispherical dished heads, joined by a single butt weld circumferential seam, fully radiographed per ASME Code Part UW-51.

(2) Material - ASME SA-302 Grade C (carbon steel)

(3) Vessel Size:

Water capacity - 600 L (160 U.S. Gallons)
Outside Diameter - 112 cm (44 inches)
Wall Thickness - 3.94 cm (1.551 inches)
Weld Joint Efficiency - 1.0
Corrosion Allowance - 0.0

(4) Design pressure - 200 bar (2900 psig)
Note: Design pressure means "maximum allowable working pressure (MAWP)" as used in the ASME Code.

(5) Pressure relief system - one (1) rupture disc inboard of and in series with a spring loaded pressure relief valve. The burst pressure of the rupture disc is 190 bar and the start-to-discharge pressure of the pressure relief valve is 200 bar.

b. TESTING -

(1) Prior to first use under the terms of this exemption:

(i) Each pressure vessel must be hydrostatically tested at 400 bar (5800 psig) using the direct expansion method specified in the Compressed Gas Association (CGA) Pamphlet C-1. Permanent volumetric expansion may not be greater than 10% of the total volumetric expansion at test pressure.

(ii) All welds must be inspected by 100% X-ray examination in accordance with ASME Procedure PRO008 on file with OHMEA.

(iii) A Brinell Hardness Test must be performed on each pressure vessel at 2 locations 180° opposite each other. Test locations may not be on the circumferential weld, but must be within 10 cm (4 inches) of the weld. The Brinell Hardness Number must not exceed 240.

(2) Every three years:

(i) Each pressure vessel must be hydrostatically tested at 400 bar (5800 psig) using the direct expansion method specified in the Compressed Gas Association (CGA) Pamphlet C-1. Permanent volumetric expansion may not be greater than 10% of the total volumetric expansion at test pressure.

(ii) A Brinell Hardness Test must be performed on each pressure vessel at 2 locations 180° opposite each other. Test locations may not be on the circumferential weld, but must be within 10 cm (4 inches) of the weld. The Brinell Hardness Number must not exceed 240.

(iii) Each pressure vessel must be given an external and internal examination, wall thickness measurement and leakage test in accordance with the CITERGAZ SA procedures on file with OHMEA.

(3) Every six years, all welds must be inspected by 100% X-ray examination in accordance with ASME Procedure PRO008 on file with OHMEA.

c. The following provisions apply to non-DOT specification spherical pressure vessels manufactured after the issuance of DOT-E 11722 (3rd Revision):

(1) MANUFACTURE - The manufacturer of pressure vessels under this exemption must secure an approval in accordance with the provisions of 49 CFR Part 107, Subpart H, that apply. Each facility located outside the United States where pressure vessels are to be manufactured or where any part of the manufacture is to take place under this exemption, must secure an authorization under § 107.805(a) in addition to the applicable requirements of 49 CFR Part 107, Subpart H.

(2) Inspection - Compliance with the requirements of §§ 178.35 and 107.803(a), which are not specifically addressed or excepted in this exemption, is required. In addition to the information required by § 178.35, the inspector's report must include the pertinent signed and dated ASME Data Report Form.

d. OPERATIONAL CONTROLS -

(1) The maximum net weight of ladings authorized in each pressure vessel is as follows:

Boron trifluoride, compressed	402 kg
Difluoroethylene *or* Refrigerant gas (R1132a)	462 kg
Hexafluoroethane, compressed *or* *Refrigerant gas* (R116)	660 kg
Hydrogen chloride, anhydrous	444 kg
Nitrogen trifluoride, compressed	450 kg
Nitrous oxide	450 kg
Trifluoromethane *or* Refrigerant gas, (R23)	570 kg

(2) Prior to the first shipment under this exemption, grantee must submit in writing to OHMEA a list of all serial numbers of pressure vessels to be qualified under this exemption.

(3) Transportation is authorized with the mounting of up to 10 pressure vessels on an ISO platform container.

8. SPECIAL PROVISIONS:

a. A person who is not a holder of this exemption who receives a package covered by this exemption may reoffer it for transportation provided no modifications or changes are made to the package and it is reoffered for transportation in conformance with this exemption and the HMR.

b. A current copy of this exemption must be maintained at each facility where the package is offered or reoffered for transportation.

c. MARKING - Each pressure vessel must be plainly and durably marked on opposing sides near the middle, in letters and numerals at least 5 cm (2 inches) high on a contrasting background, "DOT-E 11722". Additionally, each pressure relief device must be marked with a start-to-discharge pressure in psig and a rated relief device capacity in SCFH.

d. Each non-DOT specification spherical pressure vessel manufactured after the issuance of DOT-E 11722 (3rd Revision) must be marked with a registration symbol designated by the Office of Hazardous Materials Exemptions and Approvals for a specific manufacturing facility.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo vessel.

10. MODAL REQUIREMENTS: A current copy of this exemption must be carried aboard each motor vehicle or cargo vessel used to transport packages covered by this exemption.

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:

- All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
- Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when the exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must inform the AAHMS, in writing, of any incident involving the package and shipments made under the terms of this exemption.

Issued at Washington, D.C.:

JAN 6 2003

(DATE)

for Robert A. McGuire
Associate Administrator for
Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590. Attention: DHM-31.

Copies of this exemption may be obtained by accessing the Hazardous Materials Safety Homepage at http://hazmat.dot.gov/exemptions Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

PO: SS/sdc

JAN 6 2003

The following are hereby granted party status to this exemption based on their application(s) submitted in accordance with § 107.107 or § 107.109, as appropriate:

Company Name City/State	Application Date	Issue Date	Expiration Date
ATOFINA Paris, France (Former Grantee: Elf Atochem S.A.) (U. S. Agent: ATOFINA Chemicals, Inc. Philadelphia, PA)	11/20/2001	2/1/2002	1/31/2004

Robert A. McGuire
Associate Administrator for
Hazardous Materials Safety